

Table S2. Relevant Strains, Plasmids and Primers Employed in this Study

Strain, Plasmid	Description	Reference
<i>E. coli</i>		
NEB 5- α	fhuA2 Δ (argF-lacZ)U169 phoA glnV44 Φ 80 Δ (lacZ)M15 gyrA96 recA1 relA1 endA1 thi-1 hsdR17	
C43(DE3)	F – ompT hsdSB (rB- mB-) gal dcm (DE3)	<i>Miroux and Walker, 1996</i>
RK103	<i>E. coli</i> MG1655 Δ ccm::kan ^R , deleted for all ccm genes	<i>Feissner et al, 2006</i>
MS36	C43 Δ ccm::kan ^R , deleted for all ccm genes	This study
<i>Plasmid</i>		
pRGK332	pBAD <i>Bordetella pertussis</i> cytochrome c4:His	<i>Feissner et al, 2006</i>
pRGK368	pGEX <i>Helicobacter hepaticus</i> GST:CcsBA	<i>Richard-Fogel et al, 2007</i>
pMCS5	pGEX GST:CcsBA (H858A aka TM-His1A)	<i>Frawley and Kranz, 2009</i>
pMCS10	pGEX GST:CcsBA (H83G aka TM-His2G)	This Study
pMCS39	pGEX GST:CcsBA (H761G aka P-His1G)	This Study
pMCS81	pGEX GST:CcsBA (H83A aka TM-His2A)	<i>Frawley and Kranz, 2009</i>
pMCS84	pGEX GST:CcsBA (H858G aka TM-His1G)	This Study
pMCS106	pGEX GST:CcsBA (H761A aka P-His1G)	<i>Frawley and Kranz, 2009</i>
pMCS107	pGEX GST:CcsBA (H897A aka P-His2A)	<i>Frawley and Kranz, 2009</i>
pMCS109	pGEXT GST:CcsBA (H83G/H858G aka TM-His2G/TM-His1G)	This Study
pMCS147	pGEX GST:CcsBA (H897G aka P-His2G)	This Study
pMCS154	pGEX GST:CcsBA (H761G/H897G aka P-His1G/P-His2G)	This Study
pMCS194	pGEX GST:CcsBA (W833A)	This Study
pMCS200	pGEX GST:CcsBA (G834A)	This Study
pMCS201	pGEX GST:CcsBA (W837A)	This Study
pMCS202	pGEX GST:CcsBA (W839A)	This Study
pMCS203	pGEX GST:CcsBA (D840A)	This Study
pMCS204	pGEX GST:CcsBA (E843A)	This Study
pMCS217	pGEX GST:CcsBA (K842A)	This Study
pMCS254	pGEX GST:CcsBA (W828A)	This Study
pMCS270	pGEX GST:CcsB*A (aa 659)	This Study
pMCS272	pGEX GST:CcsB*A (aa 356) clone 1	This Study
pMCS275	pGEX GST:CcsB*A (aa 356) clone 2	This Study
pMCS289	pGEX GST:CcsBA(W828C)	This Study
pMCS290	pGEX GST:CcsBA(A829C)	This Study
pMCS291	pGEX GST:CcsBA(S832C)	This Study
pMCS292	pGEX GST:CcsBA(W833C)	This Study
pMCS293	pGEX GST:CcsBA(G834C)	This Study
pMCS294	pGEX GST:CcsBA(D840C)	This Study
pMCS295	pGEX GST:CcsBA(Y836C)	This Study
pMCS296	pGEX GST:CcsBA(W839C)	This Study
pMCS297	pGEX GST:CcsBA(E843C)	This Study
pMCS298	pGEX GST:CcsBA(E831C)	This Study

pMCS299	pGEX GST:CcsBA(R835C)	This Study
pMCS300	pGEX GST:CcsBA(G838C)	This Study
pMCS313	pGEX GST:CcsBA(K842C)	This Study
pMCS316	pGEX GST:CcsBA(W837C)	This Study
pMCS317	pGEX GST:CcsBA(N830C)	This Study
pMCS318	pGEX GST:CcsBA(S841C)	This Study
pMCS319	pGEX GST:CcsBA(T844C)	This Study
pMCS320	pGEX GST:CcsBA(W845C)	This Study
pMCS585	pGEX GST:CcsBA (Δ aa358-377)	This Study
pMCS586	pGEX GST:CcsBA (Δ aa100-109)	This Study
pMCS587	pGEX GST:CcsBA (Δ aa299-308)	This Study
pMCS588	pGEX GST:CcsBA (Δ aa536-545)	This Study

Oligonucleotide	Sequence (5' --> 3')	Purpose	Template
CcsBA 1104ins - F	atagcttatgcctcaacacaatgaaggaggacttcacatgtcacaaactgactccagc	pMCS272 cloning	pRGK368
CcsBA 1104ins - R	gctggaagtcagttgtgacatggtgaagtcctccttcattgtgttgaggcataagctat	pMCS272 cloning	pRGK368
CcsBA H83G - F	gataaaagagcgcccaagagcaa	pMCS10 cloning	pRGK368
CcsBA H83G - R	ctattttctccgcggttctcgtt	pMCS10 cloning	pRGK368
CcsBA H858G - F	gcaattatcttaggcttgcgcttgtgtgccc	pMCS84 cloning	pRGK368
CcsBA H858G - R	cgtaataagaatccgaacgcgaaacaacacgg	pMCS109 cloning	pMCS10
MSP5	gtgcttaaatcttattggctcaacattggcgtctccgtcatca	pMCS84 cloning	pRGK368
MSP6	tgatgacggagacgccaatgttgagccaataagatttaagcac	pMCS109 cloning	pMCS10
MSP7	ttattatctcacaggtatgggcagctatccgcaggagaa	pMCS39 cloning	pRGK368
MSP8	ttctctcgcggcatagctgccatactgtgataataa	pMCS154 cloning	pMCS147
MSP37	gccgcctctttatcgttatcatcattggtgcggg	pMCS39 cloning	pRGK368
MSP38	cccgcaccaatgatgataacgataaaagagcggc	pMCS154 cloning	pMCS147
MSP69	ccaatatctgcccgcagattcattagccaaatgccacca	pMCS147 cloning	pRGK368
MSP70	tggtggcatttgggctaataatctgcgggcagatattgg	pMCS147 cloning	pRGK368
MSP71	ccagcccaaatatctggcccaagattcattagc	pMCS81 cloning	pRGK368
MSP72	gctaataatcttgggcccagatattggggctgg	pMCS81 cloning	pRGK368
MSP73	tagaatccagcccgcatactgcccgaagattcattagcc	pMCS194 cloning	pRGK368
MSP74	ggctaataatcttggggcagatatgcgggctgggattcta	pMCS194 cloning	pRGK368
MSP75	ccaagtttcttagaatccgcgcccgaatctgcccga	pMCS200 cloning	pRGK368
MSP76	ttggggcagatattggggcgcggttctaaagaaactgg	pMCS200 cloning	pRGK368
MSP77	cccgaagtttcttagaagcccagcccgaatctctg	pMCS201 cloning	pRGK368
MSP78	cagatattggggctgggcttctaaagaaacttggg	pMCS201 cloning	pRGK368
MSP79	aagtcccgaagtttctgcagaatcccagcccgaatctgc	pMCS202 cloning	pRGK368
MSP80	gcagatattggggctgggattctgcagaacttgggcact	pMCS202 cloning	pRGK368
		pMCS203 cloning	pRGK368
		pMCS217 cloning	pRGK368
		pMCS217 cloning	pRGK368

MSP81	ctaataagtgcccaagttgctttagaatcccagcccc	pMCS204 cloning	pRGK368
MSP82	ggggctgggattctaaagcaactgggcacttattag	pMCS204 cloning	pRGK368
MSP83	gccccaatatctgccccagattcattagccgcaatgccaccaaggaagtccctactattagc	pMCS254 cloning	pRGK368
MSP84	gctaagtgtagggaaactccttgggtggcattgcggtaatgaatcttggggcagatattggggc	pMCS254 cloning	pRGK368
MSP85	tgataggaattccaaaaactcctacatgaaggaggacttcacatgctccgcttattcac	pMCS270 cloning	pRGK368
MSP86	gtgaataagcggacgcatgggtgaagtcctcctcatgtaggagtattttgagaattcctacaa	pMCS270 cloning	pRGK368
MSP87	ttccttgggtgcatcttgcgctaatgaatcttgggg	pMCS289 cloning	pRGK368
MSP88	ccccaagattcattagcgcaaatgccaccaaggaa	pMCS289 cloning	pRGK368
MSP89	ctccttgggtgcatcttgggtaatgaatcttggggcaga	pMCS290 cloning	pRGK368
MSP90	tctgccccagattcattacaccaaattgccaccaaggaa	pMCS290 cloning	pRGK368
MSP91	ccttgggtgcatcttgggtgtaattcttggggcag	pMCS317 cloning	pRGK368
MSP92	ctgccccagattcacaagccccaaatgccaccaagg	pMCS317 cloning	pRGK368
MSP93	ttccttgggtgcatcttgggtaatgcttggggcagatattgg	pMCS298 cloning	pRGK368
MSP94	ccaatatctgccccagcaattagcccaaattgccaccaaggaa	pMCS298 cloning	pRGK368
MSP95	ggtggcatttgggctaataatgttggggcagata	pMCS291 cloning	pRGK368
MSP96	tatctgccccaacattcattagcccaaattgccacc	pMCS291 cloning	pRGK368
MSP97	tgggctaataatcttgggcagatattggggc	pMCS292 cloning	pRGK368
MSP98	gccccaatatctgcccgaagattcattagccca	pMCS292 cloning	pRGK368
MSP99	gggctaataatcttgggtgagatattggggctgg	pMCS293 cloning	pRGK368
MSP100	ccagccccaatatctgcaccaagattcattagccc	pMCS293 cloning	pRGK368
MSP101	gctaataatcttggggctgctattggggctgggattct	pMCS299 cloning	pRGK368
MSP102	agaatcccagccccaatagcagccccagattcattagc	pMCS299 cloning	pRGK368
MSP103	gctaataatcttggggcagatgttggggctggga	pMCS295 cloning	pRGK368
MSP104	tcccagccccaacattctgccccagattcattagc	pMCS295 cloning	pRGK368
MSP105	atcttggggcagatattggcgtgggattctaaa	pMCS316 cloning	pRGK368
MSP106	tttagaatcccagccgcaatatctgccccagat	pMCS316 cloning	pRGK368
MSP107	cttggggcagatattggtgctgggattctaaaga	pMCS300 cloning	pRGK368
MSP108	tctttagaatcccagcacaatatctgccccag	pMCS300 cloning	pRGK368
MSP109	ggcagatattggggctgctgattctaaagaaactg	pMCS296 cloning	pRGK368
MSP110	caagttctttagaatcgagccccaatatctgcc	pMCS296 cloning	pRGK368
MSP111	gggcagatattggggctggtgtctaaagaaactgggca	pMCS294 cloning	pRGK368
MSP112	tgccccagttctttagaacaccagccccaatatctgccc	pMCS294 cloning	pRGK368
MSP113	atattggggctgggattgtaagaaactgggcac	pMCS318 cloning	pRGK368
MSP114	gtgccccagttcttacaatcccagccccaat	pMCS318 cloning	pRGK368
MSP115	gcagatattggggctgggattctgcaacttgggcacttattagat	pMCS313 cloning	pRGK368
MSP116	atactaataagtccccagtttgcagaatcccagccccaatatctgc	pMCS313 cloning	pRGK368
MSP117	ggcagatattggggctgggattctaaatgcaacttgggcacttattagat	pMCS297 cloning	pRGK368
MSP118	actaataagtccccagtgcatcttagaatcccagccccaatatctgcc	pMCS297 cloning	pRGK368
MSP119	agatattggggctgggattctaaagaatgttgggcacttattag	pMCS319 cloning	pRGK368
MSP120	ctaataagtccccaacattctttagaatcccagccccaatatct	pMCS319 cloning	pRGK368
MSP121	ctgggattctaaagaaactgcgcaacttattagattgtgtga	pMCS320 cloning	pRGK368
MSP122	tacaccaataactaataagtgcgcaagttctttagaatcccag	pMCS320 cloning	pRGK368

MSP273	cttgtaaaggtggtatttcattttccaaagcataacaaagtgcactacaaagtgc	pMCS585 cloning	pRGK368
MSP274	gcactttgtagtgcaactttgttatgcttggaaaatgaaataccacctttacaag	pMCS585 cloning	pRGK368
MSP275	tggtgcggtattactcgttattatggacaaaagcgtga	pMCS586 cloning	pRGK368
MSP276	tcacgctttgtccataataacgagtaataaccgcacca	pMCS586 cloning	pRGK368
MSP277	ccctgatgaaaaggctctattcctacatacataggctatgc	pMCS587 cloning	pRGK368
MSP278	gcatagcctatgtatgtaggaatagagcctttttcatcaggg	pMCS587 cloning	pRGK368
MSP279	ccttattfacacagggcaggtgaataaccaatggctctacc	pMCS585 cloning	pRGK368
MSP280	gtagagccattggttattcacctgcctgtgtaataagg	pMCS585 cloning	pRGK368